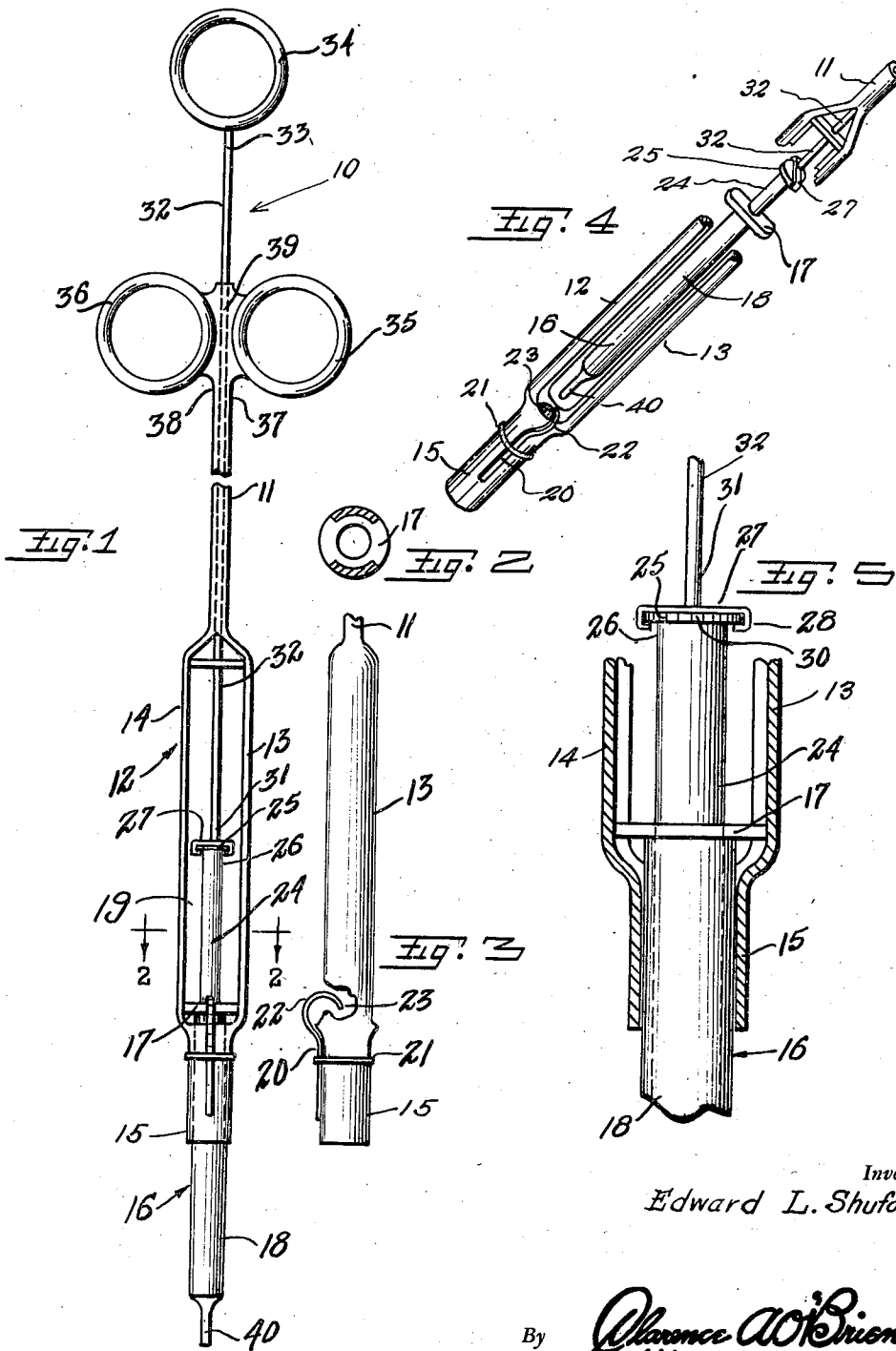


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E. L. SHUFORD
SYRINGE EXTENSION

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SYRINGE EXTENSION

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My invention relates to surgical appliances and has for an object to provide means whereby a syringe may be extended to reach inaccessible cavities or tubes in the animal body.

Another object of the invention is to provide an instrument adapted for use in the artificial insemination of cattle or other live stock.

A further object of this invention is to provide a detachable syringe manipulator.

Other features and advantages will become more readily apparent from the following description and the accompanying illustrative drawings in which:

Figure 1 is an elevational view of my device,

Figure 2 is a sectional view taken on line 2—2 thereof,

Figure 3 is a detail side elevation of the device, shown partly broken away,

Figure 4 is a detail perspective view, parts being broken away, and

Figure 5 is an enlarged sectional elevational view of a broken away portion of the invention.

In the drawings and specification the same characters of reference indicate same parts throughout and in which 10, is my syringe applicator and actuator which consists of an elongated tube 11, having its lower portion 12, split and divided into two spread apart parallel sections 13 and 14, which in turn terminate integrally in an enlarged tube 15, the diameter of which is adapted to receive a syringe 16, having an annular flanged upper end 17. The syringe body and its flange 17, are both of a diameter to pass readily through the space 19, between the arms 13 and 14, for seating in the said tube 15. This tube 15, has attached thereto a spring clip 20, by means of a ring 21, or otherwise, the curved in head 22, of which is adapted to be sprung out by pressure of the flange 17, when being positioned in the device for use. When the flange passes the tip 23, it springs back into normal position and upon the flange, whereby the syringe is held securely in place until released.

Operating within said body 18, of the syringe is a plunger piston 24, having a flat head 25, on its outer end 26, adapted to be engaged by the grip 27, the overhanging and returned fingers 28, grip the projecting flange 30, of said head 25. The grip 27, is formed on the inner end 31, of an actuating rod 32, which extends through and above the tube 11, and is provided on its outer terminal 33, with a finger ring 34, whereby, in conjunction with the like rings 35 and 36, projecting from opposing sides 37 and 38, of the upper terminal 39, of tube 11, form means whereby the rod 32, may be actuated, which in turn actuates the piston 24, to discharge the contents of syringe body 18, through its outlet end 40.

From the foregoing specification it will be obvious that with my device certain otherwise unaccessible parts of the animal body which cannot be located with an ordinary syringe may now be readily reached with my device.

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It is thought that persons skilled in the art to which the invention relates will be able to obtain a clear understanding of the invention after considering the description in connection with the drawings. Therefore, a more lengthy description is regarded as unnecessary.

Changes in shape, size and rearrangement of details and parts such as come within the purview of the invention claimed may be resorted to, in actual practice, if desired.

Having now described my invention that which I claim as new and desire to procure by Letters Patent is:

1. A syringe and operating extension therefor comprising spaced axially aligned upper and lower tubes, oppositely disposed parallel rods formed integrally with the adjacent ends of said tubes providing a seat at the upper end of said lower tube, a syringe body formed with an annular flange adapted to be received in said lower tube with its flange on said seat, a piston in said syringe having a head on its outer end, an operating rod slidably mounted through said upper tube, and fingers on the lower end of said rod engageable with the head on said syringe piston.

2. A syringe and operating extension therefor comprising spaced axially aligned upper and lower tubes, oppositely disposed parallel arcuate rods formed integrally with the adjacent ends of said tubes providing a seat at the upper end of said lower tube, a syringe body formed with an annular flange adapted to be received in said lower tube with its flange on said seat, a piston in said syringe having a head on its outer end, an apertured guide between the upper ends of said rods, an operating rod slidably mounted through said upper tube and said guide, fingers on the lower end of said rod engageable with the head on said syringe piston, finger engaging rings mounted on the upper end of said upper tube, a cooperating finger engaging ring on the outer end of said operating rod, and a resilient locking finger supported on said lower tube adapted to overlie and contact the upper surface of the annular flange on the syringe body when the same is in operative position within said lower tube.

EDWARD L. SHUFORD.

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